

GRADUATE SCHOOL

**Everything you wanted to know
about graduate school...
and more!**



USRP Graduate Seminar General Guidelines and Advice for Applying to Graduate School

NASA LANGLEY RESEARCH CENTER
Office of Education
2002

Table of Contents

1	What is Graduate School?
2	Is Graduate School Right for You?
2	Selecting a Graduate School
4	Criteria for Evaluating Graduate Programs
5	Visiting Prospective Graduate Schools
5	The Application Process
6	The Application Package
10	The Personal Essay
12	Financing Graduate School
14	Tips for Great Recommendation Letters
15	Graduate Admissions Tests
18	Application Timeline
21	Printed Resources
21	WWW References
22	Sources for Test Information
22	URLs for Fellowships
23	NASA-Related Graduate Opportunities

What is Graduate School?

In contrast to undergraduate study, which introduces you to a wide range of subjects, a graduate program involves specialized knowledge and concentrated study in one area.

Reasons to Get a Graduate Degree

Knowledge
Opportunity
More Money
Personal Fulfillment
Career Mobility

A recent U.S. News and World Report article indicates that “from the employer’s perspective, an advanced degree is a sign that a job applicant has the necessary commitment and dedication.” By returning to school as a graduate student, you are investing in your future. And whether you are seeking your doctoral, master’s, or professional degree you should be recognized and rewarded.

There are professional and research degrees at both the master’s and doctoral levels:

A master’s degree usually takes one or two years of study

The Ph.D. usually takes a minimum of four to six years of study

- **The Professional Master’s**—gives you a specific set of skills needed to practice in a particular field, such as education, business, engineering or other professions requiring specialized training. It is generally a final or “terminal” degree, and often involves an internship, practicum or fieldwork.
- **The Research Master’s**—provides experience in research and scholarship, and it may be a final degree or a step toward the Ph.D.
- **The Professional Doctorate**—The M.D. for medical practice or the J.D. for law are the most common professional degrees.
- **The Research Doctorate**—The Ph.D. (Doctor of Philosophy) is the primary credential for college level teaching. The Ph.D. typically involves both course work and a major research project. The Ph.D. usually takes a minimum of four to six years of full-time study.

Is Graduate School Right For You?

What are your motivations for attending graduate school? *Be honest with yourself.* A post graduate degree can be extremely beneficial to your career but only if you choose an emphasis that interests you. Make sure that you have a clear sense of the career you want to pursue.

Think twice if you're considering grad school for one of the following reasons:

- You're getting pressure from your friends, parents or professors.
- You're doing it simply to postpone the inevitable job search.
- You think there's nothing you can do with only an undergraduate degree. Regardless of your major, keep in mind that your undergraduate education has equipped you with many skills that are highly valued in the workplace, such as research and analysis, critical thinking, and communications.

In deciding whether to pursue an advanced degree, you may wish to carefully consider some important questions:

- What are my long-term and short-range professional goals?
- Is graduate school necessary for me to achieve these goals?
- Do I have the interest and ability to succeed in a graduate program?
- By going to graduate school, am I simply delaying my career planning and decision making?
- Will the amount of time and money spent on a program ultimately translate into greater career mobility and financial possibilities?
- Am I willing to meet the extensive research, course work and major paper demands of another academic program?
- Would continuing education alternatives, such as vocational school and community college courses, or professional seminar and workshops assist in achieving my goals?

Selecting a Graduate School

Once you're certain that grad school fits into your career and life plans, you need to find out as much as possible about the program you have in mind. Early in your junior year, begin to explore schools offering the type of program you want.

A common concern deals with which institution has the "best" program. There is no single reliable ranking of graduate schools. National rankings do exist, however, each is based on different criteria. Therefore, it may be more meaningful to talk to faculty in your field and to professors who have recently been published.

While actual rankings may be somewhat misleading, comparative information about various programs is readily available. As you attempt to gain an overview of the many graduate and professional school programs available, you will probably find it useful to consult some of the references listed at the end of this packet. They are probably available in your Career Resources Library.

Criteria For Evaluating Graduate Programs

The following items can be useful in judging the educational quality of a graduate program:

Admission Standards

Having a stricter set of admission criteria allows a graduate program to be more selective of the students that they allow into the program. Look at the entrance requirements for the specific department. What are their GPA and test score standards? Does the program require work or research experience?

Programs Offered

- Specializations available?
- Focus on theory and original research or focus on the practical application of knowledge and skills?
- Internships, assistantships, and other opportunities for relevant student experiences?
- Job placement of graduates?
- Career and academic advisement to students?
- Program leadership and decision-making?
- Flexible or structured curriculum?
- Resources—Library, Financial support, Laboratory equipment and facilities, Computer facilities?

Faculty

- Academic training/credentials?
- Awards, grants, and special recognitions held?
- Faculty/student ratio?
- Research activity?
- Research productivity?
- Teaching effectiveness?
- Concern for student development?
- Involvement in program affairs?
- Group morale?

Reputation

- Accreditation?
- National rank for excellence?
- Well established program or relatively new?
- Professional accomplishments of graduates?
- Attrition level?

Philosophy of Education

- Average length of time spent in the program?
- Existing opportunities for specialization in areas of your own interest?
- Theoretical approach or pragmatic approach?

Multicultural Opportunities

- Composition of faculty and students?
- Opportunities to work with students from other cultures?
- Availability of Foreign Exchange programs?
- Possibilities of studying foreign languages?
- Integration of international concerns into the curriculum?

Ask An Expert

Books, guides, and the Internet are a start to determining which graduate school you are most interested in, but what they can tell you is limited. You need more information to find the right program. How do you get it? Talk to people; ask anyone who knows the field and get suggestions for the best graduate programs. If you are interested in architecture, try to find an architect who will give you his/her evaluation of the architectural schools. One school of architecture may be known for its eccentric creativity, while another specializes in structural design. In this situation, both schools have positive selling points, but which one appeals to your interests may be the determining factor. People don't mind being asked—everyone likes to be considered an expert.

Visiting Prospective Graduate Schools

It is a good idea to visit the universities that are on your short list. There are three times you might do this: before you apply, after you apply but before you have heard the result, and after you have been accepted. Contact the recruiting faculty member and make an appointment to visit. While you are making arrangements for a visit, ask if the department will pay all or some of your travel expenses. Departments are used to this sort of request, and if you are a promising applicant they will try to help you.

What to do on your visit

See a physical setup of the program—its offices, library, laboratories, and other facilities. Prepare yourself with a list of questions and topics you want to talk about. It will save time and make a better impression if you do not ask questions that are answered in the information you already have from the program. Ask about the possibilities of receiving financial from both the department and the university. Aid can come in the form of a fellowship, teaching assistantship,

tuition waiver, or some combination of those. Once again check the recruiting materials, they will give some idea of the number of students in the program receiving financial aid.

Graduate School Events

Open houses and graduate school fairs are a great way to learn about particular graduate schools in person. Through these events, you can get a “feel” for the school and its atmosphere. Below is a calendar listing graduate school fairs and open houses. Visit the events calendar at <http://www.gradschools.com>.

The Application Process

How it Works

The application process varies from school to school. In many cases an admissions committee consisting of faculty and administrators may make the selections, using criteria beyond just grades and test scores. They may also set goals for in-state versus out-of-state candidates, gender, and other desirable ratios.

At the other extreme, individual faculty may select candidates that match the departments needs for certain expertise or interests.

It is important that you find out the selection procedure for each school and tailor your application to show how you would be an asset to that particular institution.

General Procedures

Request applications, catalogs and financial aid information from the institutions you are interested in attending approximately one year prior to entering graduate school. Application requirements differ substantially among institutions and programs. Read each school's material conscientiously to make sure you file a complete and timely application. Some institutions use self-managed applications which allows the applicant to be responsible for obtaining and submitting all supporting documents, such as transcripts and reference letters.

Apply Early

Application deadlines can range from August 1 (before your senior year) to July (after your senior year for schools with rolling admissions). Admission and financial aid decisions are often made well in advance of stated university deadlines. Departments in heavy demand may close applications as early as October. If admissions are handled on a "rolling" basis (i.e., qualified applicants are accepted as they apply) it is to your distinct advantage to apply at the earliest possible date to receive maximum consideration. Since approximately one-half of graduate school candidates apply during the last month before deadlines, *an early application can set you apart from the competition.*

The Application Package

Typical graduate program applications include the following:

- Application form (including personal essay or "statement of purpose")
- Non-refundable fee
- Separate financial aid application
- Transcripts
- Letters of Recommendation
- Standardized Test Scores
- Personal interview

How to Apply

For graduate school, you apply to a specific program or department, even though you may send your materials to the institutions main admissions office. Apply to at least two or three departments with programs that match your interests. Select at least one highly prestigious and highly competitive research university, and one major university with fairly large graduate programs where you feel you have a reasonable chance of being accepted. As insurance, apply to an institution where you feel certain you will be accepted. If you are accepted to more than one, so much the better. You will have choices.

Completing the Application Form

It should be filled out clearly, accurately, and free of typographical and grammatical errors. Be consistent in spelling out your full, legal name on all forms. Follow directions as closely as possible. It looks more professional to send all of the materials in at ONE TIME. Copy everything you submit!

Personal Essay

Every graduate school application contains an essay portion or a "statement of purpose." Your essay should specifically address questions posed in the application, and express your enthusiasm for the field of study, your motivation, creativity, maturity, and personal uniqueness. The essay is a key measure of your ability to communicate, so it pays to be meticulous about spelling, grammar, and writing style. Most applications will state the length of the essay or provide space. Keep your essay within these boundaries; *a longer essay can work against you*. Admissions committees evaluate the quality, not the volume of the essay. Use at least 10-point type or larger. (*see pages 10-12 for essay writing tips*)

Application Fees

Application fees vary, generally ranging from \$20-\$50 in most cases. Most schools have an application fee waiver for students with financial need. Call the admissions offices and ask how to get one.

Transcripts and Grades

Have your registrar's office send a transcript of your undergraduate work directly to the admissions office of the schools to which you are applying. The minimum GPA required at most

universities is 3.0 on a 4.0 scale. Grades are of overwhelming importance, but a GPA that does not quite meet that minimum can be offset with good letters of recommendation, high test scores, and a well-written statement of purpose.

If there is a valid reason why your GPA is low (e.g., your freshman year grades pulled down your overall average, you worked 30 hours per week in addition to a heavy course load, etc.), it may be advantageous to re-compute your GPA based on your last two years of study or course work in your major. You should discuss the recomputed GPA in your essay.

Undergraduate Grade Point Average (UGPA)

Most institutions require the equivalent of a 4-year bachelor's degree from an accredited college or university prior to registering for your first term of graduate study. The admissions committee may consider several components of your UGPA when reviewing your transcript:

- Cumulative UGPA
- UGPA in your major/concentration
- Final 2-year UGPA
- UGPA in courses relevant to your intended field of study
- UGPA from year-to-year, or semester-to-semester

Financial Aid

An application for financial aid will generally come either as part of your application packet or in a separate mailing from a campus financial aid office. You may have to apply separately for fellowships and for loans. Since financial support varies widely from institution to institution, the best advice is to read all financial aid materials carefully and to file documents on time. *(see pages 12-14 for more material regarding financial aid)*

Letters of Recommendation

Most institutions will request between three and five letters of recommendation. It is best to obtain recommendations from faculty members and employers who are qualified to evaluate your academic and/or work potential and performance, based on personal observation. **Approach people for recommendations early in the fall of your senior year to give them time to write before their other academic pressures mount.** *(see pages 14-15 for more information on letters of recommendation)*

Give them the school's recommendation forms with **stamped, addressed envelopes** and enough support material to enable them to write detailed letters on your behalf. Be sure to discuss your reasons for going to graduate school and why you are applying to specific institutions or programs.

Examples of support materials include:

- a cover sheet reminding them of classes taken under them
- projects you have done for them
- a transcript
- a resume
- a copy of your essay

Test Scores

Most schools require that you take one or more standardized admissions exams before they decide upon your application. The more common standardized tests are the following:

- GRE (Graduate Record Examination)
- GMAT (Graduate Management Admission Test)
- MCAT (Medical College Admission Test)
- LSAT (Law School Admission Test)

The school's catalog will specify which test you need and will often give some indication of the score needed to be competitive for the program. Due to increased competition for admission and financial assistance, it will work to your advantage to take the appropriate standardized test early in your application process. Test registration deadlines are well in advance of the actual test dates, and most are given only a few times a year. Generally, you should plan to take the test approximately one year prior to matriculation. Policies regarding taking the test more than once, whether scores are averaged or if the high test score alone is considered, and other related issues vary from institution to institution. It is appropriate to ask about the policy. *(see pages 17-18 for more information on test taking)*

Personal Interviews

Some graduate and professional schools will grant an interview as part of the application process. The interview gives the admissions committee an opportunity to determine if there is a match between what their institution has to offer. The interview provides an excellent opportunity to "sell yourself." In addition, take this opportunity to discuss your qualifications, personal goals, and why you think you're a perfect match for the program.

Making A Great First Impression

Here is some advice to help you make a strong impression during your personal interview:

- Don't ask questions that are answered in the school's brochures or catalogs.
- Save the preferred school for last. If you have interviews at several schools, you'll improve your interviewing skills as you go along.
- Follow up with a "Thank You" note. It can be quite short, but mention something specific about the interview or your qualifications.
- Be prepared to answer standard questions such as:
 - Why do you want to pursue graduate studies?
 - What are your long-range goals?
 - Why do you believe you'll be successful in our program?

The Notification Process

You may receive a reply anywhere between the months of as early as March or April, or as late as June. In some cases, you may be placed on a waiting list from which you may be selected as vacancies occur. These could be filled as late as immediately prior to the beginning of a new term.

Before you begin receiving acceptances and rejections, rank the schools according to your preferences. **As soon as you receive two offers, politely decline the less attractive one. Continue this process until you make your final choice.**

Before being pressured into sending a fee to your second choice program, try to speed up your first choice school with a polite inquiry about the status of your application. If they intend to notify applicants shortly, try to stall the other school. If there will be considerable time between the deadline for one school and the notification date of another, you may have to decide if you're willing to pay for a guaranteed spot you may not use.

The "Wait List"

Being on a school's "wait list" or "holding list" is similar to being at the end of a long line for tickets to a popular event. Your chances of getting in depend on how many are ahead of you.

Here are some proactive things you can do if you end up on a wait list:

- Apply to more schools
- Take an intermediate degree, especially if you're switching your area of concentration.
- Take additional classes and reading in your major field of study.
- Attend summer school at your target institution.

Common Barriers to Graduate School Admission

Deadlines not met

Unreasonable Expectations of Admissibility

Inappropriate Application Essay

Inappropriate Undergraduate Curriculum

Weak or Ineffective Recommendation Letters

Incomplete Application and Inadequate Follow-Up Checks

Weak Academic Record and /or Low Test Scores

Lack of Research Activity, Extracurriculars, etc.

The Personal Essay

The audience for your "personal essay" is an admissions committee composed of members of your future profession or academic discipline. When they read your essay, they will be seeking **depth** and **substance**, along with a **true passion** and **commitment to your area of study**. They will also be looking for individual traits or characteristics that make you an outstanding graduate school candidate.

Through the personal essay, you have a unique opportunity to:

- Convey both your short-range and long-range career goals.
- Present yourself as an individual with desirable personal abilities, background, interests and plans.
- Describe the nature and significance of your relevant experiences, and give concrete evidence of your knowledge, competence and motivation in the field of your choice.
- Explain your special interest in this particular graduate program.
- Account for any conspicuous weaknesses in your record.
- Demonstrate your writing ability and communication skills in general.

How to Get Started

It is imperative that you conduct a thorough self-assessment of your interests, motivations and career goals before you begin.

Consider these questions about your own abilities, background, interests, and plans:

- Why do I want to pursue a graduate school program?
- What are the special features, approaches, or values of this particular program?
- How do my interests, values, strengths, experiences, ambitions and plans relate to what this program offers?
- Why do I want to be a part of this program?
- Why would this program want me?
- What is my interest and motivation in this field?
- What have I gotten out of it so far and what do I hope to get out of it?
- Can I trace my interest and motivation to any concrete experience?
- What are my strengths related to this field, personal, academic, and experiential?
- What experiences demonstrate my competence and motivation in this field?
- Do my relevant experiences fall into any pattern? Broad exploration? Increasing focus? Tackling greater and greater challenges?
- What kinds of experiences have taught me the most?

Writing Tips

Here are some general tips to help you write an effective personal essay:

- **Before** you put pen to paper, **make a list** of information that may be pertinent to the admissions decision. Lists may include professors, courses, books, research projects, ideas, travel, and other experiences that have been important. You should also list work, extracurricular and volunteer activities, special skills, honors and awards.
- **Give yourself plenty of time.** Start thinking about your essays early. The admissions committee reads essays thoroughly and carefully. Make sure you've given it your best effort.
- Be sure to **read the essay questions on the application carefully.** What information, approach, or emphasis is the question asking for? Make sure you answer all questions and address issues outlined.
- Although you may formulate a general essay in advance, make certain that each application contains an essay, which specifically answers the questions asked, by the school. Don't use the same essay for two different schools if their application asks different questions. **Write individualized, unique essays appropriate to the individual schools.**
- Your spirit, character and uniqueness should come through, but your **writing should be formal and correct.** Refer to *The Elements of Style* by William Strunk, Jr. and E.B. White.
- Each essay should contain at least a **sentence or two that explains why you have chosen that particular institution.** Does it have an excellent specialization in your area of interest? Is there a particular faculty member with whom you expect to work? Did a faculty member recommend the program to you?
- Strive for a **strong opening line** or paragraph. Look for something beyond the predictable, something that demonstrates the qualities that set you apart from other candidates.
- **Specific knowledge, skills, and insights acquired through internships** and other work experiences--paid or volunteer, and related to your proposed field of study--are particularly strong material.
- Any experience that demonstrates interpersonal talents, entrepreneurial skills, ability to perform under stress, unusual background, some important lessons learned, or a genuine commitment to a worthy cause could be appropriate if you **demonstrate the relevance.**
- **Draft! Draft! Draft!** Good writing is writing that is easily understood. **Have one good writer critique your essays,** and another proofread them.

Organizing the Essay

There are **two main approaches** to organizing an essay:

1. Make an outline of the points you want to cover and then expand upon them
2. Put your ideas down on paper as they come to you and go over them, possibly eliminating many sentences and pushing others around ruthlessly until you have achieved a clear, logical sequence. This approach is difficult, but may produce a more inspired piece of writing than the outline method.

After you have gotten your first draft down on paper, **go over it for style**. One of the most common pitfalls applicants encounter is the habit of making "I" the subject and first word of nearly every sentence. Many people also use the simple declarative sentence almost exclusively, which tends to result in monotonous reading and often to obscure the development of ideas. For instance, cause and effect relationships are often lost in a series of simple sentences. Look carefully through what you have written for ideas or statements that have a cause and effect relationship.

Another weak point of many essays is **the tendency to oversell through the use of adjectives and adverbs**. If, when reading over your essay, you find yourself saying that certain experiences or ideas are "interesting," "educational," or "rewarding," or if you find the words "very" and "extremely" appearing frequently, you need to do some editing. Ask yourself not how interesting your summer job was, but what was interesting about it and what you learned from it. Rather than using vague adjectives, either be specific or simply let your experience and qualifications stand on their own merit.

Financing Graduate School

At the time of application, students should write directly to the department chairperson where they are applying and indicate that they wish to be considered for department or university-administered funds. Many graduate school applications include a section devoted to financial aid. The majority of university funding is handled in this manner.

You can expect tuition costs to increase an average of 10% a year while you are earning your degree!

A note of caution—some university awards may require proof of unsuccessful attempts to obtain funds from outside sources. **All students (U.S. citizens and permanent resident aliens) attending graduate school are now considered financially independent by the Federal government.** Credit history is becoming an important issue in obtaining loans for educational purposes. Establishing good credit is essential before applying for loans.

Basic Types of Financial Assistance

1. **Merit-Based Aid:** Many forms of financial assistance are awarded primarily on the basis of academic accomplishment, talent, or promise. The terms used to describe merit-based types of aid are not always clearly defined. Such terms as grant, stipend, graduate assistantship, and fellowships are defined individually by an institution or department, so it is no surprise to find variations of meaning. One thing that merit-based awards have in common is that they all require an applicant's academic qualification to fall within a pretty high range.
2. **Fellowships:** These awards, granted on the basis of academic achievement, normally include a stipend for living expenses, and pay registration fees and tuition. They can be either portable (i.e., offered by an organization for study at any institution of the student's choice) or institutional (i.e., offered by the university or department for study there). Many universities have their own fellowships that generally go to the students the institution or department wants most to attract. Fellowships are considered a very prestigious form of financial assistance at the graduate level. **Fellowships are used by universities to attract students with the highest possible qualifications.**
3. **Assistantships:** the most common type of graduate financial assistance; usually comes in the form of teaching, research, or graduate assistantships. Students assist in the instruction, research, or other functions of an institution's schools, departments, and/or individual professors. Because both research and teaching assistantships are generally allocated and administered by the graduate schools, department programs, or individual faculty members, early contact with the appropriate source is critical. This contact can be made either before or after applying and should involve identification of the application's academic interests and background.
4. **Grants:** sums of money awarded for specific activities on a project basis by funding sources such as government agencies, foundations, and corporations. Research grants made to institutions or individual faculty members form a major source of graduate student support through the provision of assistantships to carry out the terms of the grant.
5. **Resident Assistantships:** Some institutions have programs in which graduate students earn a stipend, room and board, or both by working as assistants in undergraduate residence halls. To inquire about such possibilities, contact the school's director of resident halls.
6. **Need-Based Aid:** These awards, including work-study programs, loans, grants, and tuition remission programs are all based on the financial status when entering graduate school.
7. **Loans:** Loans can be obtained through the Federal Perkins Loan and/or the Federal Family Loan or the Federal Direct Loan Programs. These loans must be repaid, and repayment begins six months (Perkins, nine months) after an individual ceases to be a student. Other sources include loans from private companies or school-sponsored loan programs.

8. **Work-Study Program:** The Federal Work-Study Program provides employment for students on campus and off campus. The school administers this program through its financial aid office. Not all on-campus employment is through Federal Work Study; there are ways of securing part-time employment that do not require a demonstrated financial need.
9. **Fellowships:** Fellowships for graduate students, which may include part or all of your tuition and stipends, are available through your department of study and/or they may be funded by the state. Fellowships are usually awarded for financial need and academic excellence. Ask your financial aid office or departmental head for more details. There are a number of private fellowship offerings available based on merit, area of interest, minority status. Apply for national fellowships, such as the Fulbright, Mellon, National Research Foundation, National Science Foundation, among others, directly with these organizations.

Tips for Great Recommendation Letters

Although grade point averages and Graduate Record Exam scores play a central role in graduate admissions and job opportunity, most graduate programs and employers do not base their decisions on numeric scores alone. In fact, highly competitive programs may simply use these scores as a screening device to reduce the size of their applicant pool. In such a situation, letters of recommendation can be extremely important.

Who should you ask for letters of recommendation? At least **one letter, preferably two or more, should come from faculty members in your major field**. You may also wish to obtain a recommendation from a professor in an unrelated discipline (perhaps your minor field) in order to show the breadth of your academic interests.

The best recommendation letters come from people that:

Know about the particular place you are applying and the area of study you are pursuing

Know your work in the field well and can comment on it in detail

Can make a favorable comparison of you with your peers

Know you well in more than one area of your life

Are known and valued as someone whose judgment should be given weight

The following guidelines can give you the edge:

- Because the choice of letter writers is important, it's best to begin cultivating personal relationships with potential writers early on. It's important that they know several facets about you, e.g. your character, your course work, your initiative, and your communication skills. Keep them up-to-date on your achievements, either verbally or in writing.
- In order to expedite and effectively organize the information you need in your letter it is wise to include a cover note briefly listing:
 - Your contact information in case the letter writer needs to reach you
 - The deadline for each letter you need
 - Your career aspirations and the type of position you're applying for
 - Information you would like emphasized in the letter
- A copy of your transcript and resume.
- A pre-addressed, stamped envelope for each letter.
- Any forms that should be submitted with the letter. If there is a form that goes with the letter, complete as much information as possible. Type in the person's name, and the person's title, and the person's contact information. If you asked to indicate whether or not you waive access to the letter of recommendation, be sure to answer affirmatively that you DO waive the right. Answering otherwise gives the appearance of not trusting your letter writer, and it dilutes the effectiveness of the letter.
- **List current telephone numbers for your references on all applications.** More than ever, admissions offices are inclined to telephone people who submit recommendations for more details.
- **Don't use references from friends or relatives,** or recommendations from people who do not know you well.
- **Give those writing your recommendations at least a month** in which to write the reference and ask them to meet a deadline.
- Reference letters can be confidential or non-confidential. **Admissions offices may give more credence to a reference if you've waived your right to read it;** you will need to decide the advantages or disadvantages of either choice.

Graduate Admissions Tests

Few students relish the idea of standardized tests, but they help admissions officials determine who is capable of withstanding the rigors of graduate school and offer a comparison of students from a variety of universities and colleges with differing standards. There are the four major graduate school admissions tests.

Graduate Record Examinations (GRE)

Many university graduate departments require the GRE. Because competition for admission to such programs tends to be lighter than that for professional schools, the GRE is usually less of a make-it or break-it proposition than its professional test counterparts.

- The GRE includes the General Test and Subject Tests in 16 subject areas. The seven-part General Test yields separate scores for the verbal, quantitative, and analytical abilities related to success at the graduate level of education.
- The Verbal section contains 30 multiple choice questions analyzing and evaluating written material. The Quantitative section contains 28 multiple-choice questions dealing with understanding basic concepts of arithmetic, algebra, geometry, and data analysis. Starting October 2002, the Analytical Writing section will replace the stand-alone test known as the Writing Assessment.
- The Subject Tests area is designed to measure knowledge and understanding of subject matter related to graduate study in specific fields. Each test is intended for students who have majored in the subject as undergraduates.
- Both sections are scored on the familiar 200-to-800 scale.
- The General Test will cost \$115 for individuals testing in the United States.

Graduate Management Admission Test (GMAT)

GMAT Scores are used by nearly 1,300 graduate management programs throughout the world, and about 850 schools require GMAT scores from each applicant. At most business schools, GMAT scores count heavily in the admissions process, although their importance is somewhat tempered by the fact that many B-school applicants are older and already have a record of career accomplishment that may counterbalance non-stellar test scores.

The current GMAT test consists of nine separately timed sections; seven containing at least 15 multiple choice questions and two separately timed 30-minute writing tasks. The GMAT measures general verbal, mathematical, and analytical writing skills that are developed over a long period of time and are associated with success in the first year of study at graduate schools of management.

Medical College Admission Test (MCAT)

A good performance on the MCAT, like a strong grade point average, remains a near-ubiquitous precondition of medical school admission. The skills and concepts tested by the MCAT are those identified by physicians and medical educators as prerequisite for the practice of medicine.

- The MCAT is an approximately 9 1/2-hour test that includes the major sciences—biology, chemistry, and physics—plus scientific problem solving, verbal-reasoning, writing, reading and quantitative analysis.
- The MCAT is given in April and August each year. Candidates are advised to take the exam about 18 months before they plan to enter medical school.

Law School Admission Test (LSAT)

In order to be accredited by the American Bar Association, law schools must require that applicants submit LSAT scores. In the highly competitive arena of law school admissions, an average score is enough to send an otherwise qualified candidate down in flames.

- The LSAT is a half-day standardized test. It consists of five 35-minute sections of multiple-choice questions. These included one Reading comprehension section, one Analytical Reasoning section, two Logical Reasoning sections, and a variable section containing additional questions that do not contribute to your score but are used to pretest new test questions. A 30-minute writing sample is not scored, but a copy is sent to each law school to which the LSAT score is reported. Each law school determines how it will use the writing sample.
- LSAT scoring is on a scale of 120 to 180, and is based on the number of question answered correctly. There is no penalty for guessing.

Other Tests

Some schools may require other graduate school admissions tests, including the Miller Analogies Test, and the more specials Dental Admission Test, Optometry Admissions Test, Pharmacy College Admission Test, Veterinary Aptitude Test, and Test of English as a Foreign Language.

Test Preparation Options

Essentially there are two routes you can take to prepare for admission tests—Do It Yourself or Participate in a Commercial Test Preparation.

Do It Yourself

A variety of study material is available for test preparation on your own:

- Each test organization automatically provides free handbooks containing sample tests and rudimentary strategies for all registrants. Some publish and sell through bookstores an official study guide featuring actual exams from recent years.
- Commercial study guides and software programs designed for both IBM-compatible and Apple Macintosh computers are available in book and computer stores. Some feature "simulated" practice tests.
- Cable TV's Learning Channel offers a college exam review series. Check your local listings or call (800) 346-0032 for air times.
- You can view all the topics for the analytical writing section on the www.gre.org website. In addition, scored sample essays are available, with commentary from GRE readers, on that website or in the GRE POWERPREP software which will be sent to you when you register for the computer-based GRE General Test. POWERPREP also includes test tutorials, practice questions with explanations, and tow actual computer-adaptive tests for the verbal and quantitative sections.

Commercial Test Reviews and Coaching

Are these services worth their hefty fees—usually \$500-\$600? The consensus is that if you feel you'll benefit from the built-in-structure and discipline of a review course, and if you can afford it, it's probably a wise investment (although of course, there are no guarantees.)

Unfortunately, the watchword in selecting a prep course or private tutor is "Caveat emptor" (Let the Buyer Beware). There are dozens of choices and the best way to find a listing of the courses near you is to contact your career-planning center at your current university.

Application Timeline

Summer after Junior Year

- Write a draft statement of purpose/personal statement, including educational and career goals. This is the most important part of your application and can be the deciding factor in the admissions decision. It will be evaluated for quality of writing as well as for clarity of professional goals.
- Browse through college bulletins, department brochures, and web sites. Request some application materials as samples and become familiar with admissions criteria and degrees offered.
- Order registration materials and study guides for appropriate standardized test(s): GRE, LSAT, etc.
- Investigate various scholarships, fellowship, and financial aid opportunities. Visit <http://www.fastweb.com>.



**Begin the application process
AT LEAST ONE YEAR
BEFORE you plan to start
graduate school.**

Senior Year - August & September

- Ask for letters of recommendation and for professors to critique your personal statement.
- Sign up for standardized tests (inquire about fee waiver).
- Begin to develop your personal timeline for the application process
- Review and refine your resume and/or portfolio.
- Find good writing samples (one short and one long) that demonstrate your ability to write concisely as well as your research ability.
- Begin to request applications for outside scholarships, fellowships, and other funding opportunities.
- Visit your school's Career Services Department, attend graduate fairs, etc.

Senior Year - October

- Determine the schools to which you plan to apply.
- Request application materials. Note that many applications are available on-line.
- Inquire about application fee waivers.
- Take the standardized tests again...the first time should be a "practice" test.
- Finish your timeline based on each institution's application and financial aid deadlines.
- Complete your personal statement, adjusting it to meet each application's specific needs.
- Order transcripts from all post-secondary institutions. If fall term grades are expected, then check with the registrar's office to see if a transcript including fall term grades can be sent in time to meet the deadlines of programs to which you are applying.
- Get organized! Make separate folders for each school, and insert all corresponding application materials and pertinent information about the particular program to which you are applying.

Senior Year - Dec./Jan.

- Mail applications for graduate programs and funding. (Even if deadlines are later, it is good to get the applications in early).
- Contact the programs to which you are applying, and alert faculty members of your interest. If possible, schedule interviews and/or visits. Keep a record of contact names, phone number, and e-mail addresses, and all correspondence.
- Check with all schools before the deadlines to make sure your file is complete.



TIP!
**Do a draft on a
copy of the
application
forms before
you send in the
final one!**

Senior Year - February

- Check with all schools before the deadlines to make sure your file is complete.
- Make trips to schools and programs. Be sure to bring an extra copy of all application materials you sent, including resume, portfolio, transcript, and writing sample(s)

Senior Year - Spring

- Continue to keep track of acceptances, wait lists, and rejections. Make sure to visit all schools that accept you.
- If you are applying for need-based financial aid programs, you may have to file a copy of your federal income tax return.
- Decide to accept one offer. You can usually wait until the middle of April before making a firm commitment to the school. Be sure to notify other schools that accepted you of your decision so they can admit other students on their wait lists.
- Send thank-you notes to those who wrote references and recommendations for you.

Printed Resources

- **Peterson's Annual Guides to Graduate Study**, published in six volumes, profile over 1400 accredited institutions offering masters and/or doctoral programs. Many profiles list faculty and their research interests.
- **The Guide to American Graduate Schools** describes post-baccalaureate study opportunities at more than 685 accredited institutions. Sections include admission and degree requirements, tuition, degrees conferred, enrollments, fields of study, and financial aid opportunities.
- **The Directory of Graduate Programs**, published by the Graduate Record Examinations Board. This four-volume publication contains information on U.S. graduate programs in over 80 major fields.
- **Guide to American Graduate Schools**, authored by Harold Daoughty, Penguin Books.
- **The Real Guide to Grad School**, authored by Robert Clark and John Palatella, New York, NY: Lingua Franca Books.
- **Peterson's Graduate Schools in the U.S.**, Princeton, NJ: Peterson's

WWW Resources

- **Graduate School Guide Bookstore**, New Rochelle, NY
<http://www.schoolguides.com>
- **Cornell Career Services: Applying to Graduate School**
<http://www.career.cornell.edu>
- **Peterson's**
<http://www.petersons.com>
- **Graduate School Guide**
<http://www.schoolguides.com>
<http://www.gradschools.com>

Sources for Test Information

Contact test administration offices for registration and future test dates.

- **Graduate Record Exam**
Educational Testing Service
P.O. Box 6000
Princeton, NJ 08541-6000
609-771-7670
<http://www.gre.org>
Test offered October, December, April, and June
- **Graduate Management Admissions Test**
Educational Testing Service
P.O. Box 6103
Princeton, NJ 08541-6103
609-771-7330
<http://www.gmat.org>
Test offered October, January, March, and June
- **Medical College Admission Test**
American College Testing Program
P.O. Box 414
Iowa City, IA 52243
319-337-1276
<http://www.mcat.org>
Test offered August and April
- **Law School Admissions Service**
P.O. Box 2000
Newtown, PA 18940-0998
215-968-1001
<http://www.lsat.org>
Test offered October, December, and February

URLs for Fellowships

- **American Association of University Women Career Development Grants**
<http://www.aauw.org/3000/felgrawa.html>
- **Chela Financial**
<http://www.chelafinancial.com/students/Scholarships.cfm>

- **Cornell Fellowship Notebook**
<http://cuinfo.cornell.edu/student/GRFN>
- **Nationally Coveted Scholarships, Fellowships, and Postdoctoral Awards**
<http://scholarships.kachinatech.com/scholarships/scholars.html>
- **National Science Foundation**
<http://www.oraui.org/nsf/nsffel.htm>
- **Mellon Fellowships in the Humanistic Studies**
<http://www.woodrow.org/mellon/>

NASA-Related Graduate Opportunities

Graduate Student Researchers Program (GSRP)

<http://education.nasa.gov/gsrp>

The NASA Graduate Student Researchers Program (GSRP) strives to reach a culturally diverse group of promising graduate students whose research interests are compatible with NASA's programs in aerospace research and technology. Fellowships provide \$22,000 annually and are renewable, based on satisfactory progress, for up to 3 years.

Joint Institute for Advancement of Flight Sciences (JIAFS)

<http://www.seas.gwu.edu/~jiafs/>

The Joint Institute for Advancement of Flight Sciences (JIAFS) was established in 1971 through the combined efforts of LaRC and The George Washington University (GW) School of Engineering and Applied Science. The JIAFS currently offers an academic program in aerospace engineering with options in aero acoustics, aeronautics, and astronautics leading to the degrees of Master of Science, Engineer, and Doctor of Science. Other academic programs leading to these same degrees are available in the areas of fluid mechanics, thermal sciences, structures, and dynamics.

A number of Graduate Research Scholar Assistantships are available for each academic year to qualified students seeking an outstanding opportunity for graduate study and research leading to the degrees of Master of Science and Doctor of Science. Successful applicants will be awarded Graduate Research Scholar Assistantships with stipends of \$14,500 per year for the Doctor of Science degree and \$15,500 per year for the Doctor of Science degree and will concurrently be enrolled in the JIAFS academic program. In addition, the tuition is waived for the Graduate Research Scholar Assistants.

Harriett G. Jenkins Predoctoral Fellowship Program

<http://www.uncfsp.org/nasa.asp>

Harriett G. Jenkins Predoctoral Fellowships will provide full-time graduate students underrepresented in science, technology, and engineering who are U.S. citizens attending accredited U.S. colleges with financial support for a research-based education leading to a doctoral degree in a NASA-related discipline. Each three-year fellowship will also include an annual, hands-on, research experience at a NASA Center or the Jet Propulsion Laboratory.

National Space Grant College and Fellowship Program

<http://www.hq.nasa.gov/spacegrant/>

The National Space Grant College and Fellowship program consists of a national network of 703 institutions, including more than 490 colleges and universities. All 50 states, the District of Columbia, and the Commonwealth of Puerto Rico have a university-based Space Grant Consortium. Each consortium receives Federal funds to administer the program and is required to obtain matching funds from non-Federal sources. The program serves the Nation in three broad areas: research, education, and public service. Educational opportunities are provided for both graduate and undergraduate students, faculty, precollege teachers and students, and the general public. Each state awards a different amount for the scholarships. Contact your individual state's space grant for further details.

National Science Foundation (NSF) Graduate Research Fellowships

<http://www.nsf.gov/grfp>

The National Science Foundation (NSF) seeks to ensure the vitality of the human resource base of science, mathematics, and engineering in the United States and to reinforce its diversity. A competition is conducted for Graduate Research Fellowships (GRF), with additional awards offered for women in engineering and computer and information science. NSF (GRF) offer recognition and three years of support for advanced study to approximately 900 outstanding graduate students in mathematical, physical, biological, engineering, and behavioral and social sciences, including the history of science and the philosophy of science, and to research-based PhD degrees in science education. Recent awards carried a stipend for each fellow of \$18,000 for a 12-month tenure (prorated monthly at \$1,500 for lesser periods) and an annual cost-of-education allowance of \$10,500, paid to the Fellow's institution in lieu of tuition and fees.

National Physical Science Consortium (NPSC) Graduate Fellowships for Minorities and Women in the Physical Sciences

<http://www.npsc.org>

The National Physical Science Consortium (NPSC) is a nationwide organization of leading universities, national laboratories, and major corporations that provides scholarly opportunities and career paths for students pursuing doctorates in the physical sciences. The NPSC offers a unique 6-year doctoral fellowship program in astronomy, chemistry, computer science, geology, materials science, mathematics, physics, and sub-disciplines.

The NPSC fellowship can be worth up to a total of \$200,000, depending on the cost of the university that the fellow attends. The participating Ph.D. granting institution provides tuition and fees for the fellow. NASA provides the stipend for the entire 6 years, plus two paid summer internships at the sponsor's work site. Stipend amounts are \$12,500 per year for the first four years, plus two paid summer internships, and \$15,000 per year for the final two years. Because the NPSC fellows are highly sought, many of the universities augment the NPSC stipend with departmental funds.

Note: material compiled in this booklet has been adapted in part from the following resources:

- *Graduate School and You: A Guide for Perspective Graduate Students*, published by the Council of Graduate Schools
- Cornell College's Graduate School Web Page: <http://www.career.cornell.edu>
- Guide for Prospective Graduate School Candidates: <http://www.jobtrak.com>